

		ASSEMBLY NO:			DATE:	03-02-21				
		ASSEMBLY NAME:	HEC2 Receiver		PREPARED BY:	David Flory				
		REVISION:	A		VERIFIED BY:	Franci Franulovic				
		SOLDER TYPE:	Lead-Free							
ITEM	QTY	REFERENCE	DESCRIPTION	MFG	MFG P/N	VENDOR	VENDOR P/N	Datasheet URL	NOTES	Unit Price
1	4	C1, C3, C5, C7	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 1.0uF 10V X7R 10%	Yageo	CC0805KKX7R6BB105	Mouser	603-CC805KKX7R6BB105	https://www.mouser.com/datasheet/2/447/UPY-GPHC_X7R_6.3V-to-50V_18-1154002.pdf		\$0.25
2	14	C2, C4, C6, C17, C21, C27, C30, C33, C34, C35, C36, C37, C38, C39	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 0.1uF X7R 0805 10%	KEMET	C0805C104K5RACTU	Mouser	80-C0805C104K5R	https://www.mouser.com/datasheet/2/212/KEM_C1002_X7R_SMD-1102033.pdf		\$0.13
3	2	C8, C9	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 39pF C0G 0805 5%	KEMET	C0805C390J5GACTU	Mouser	80-C0805C390J5G	https://www.mouser.com/datasheet/2/212/KEM_C1003_C0G_SMD-1101588.pdf		\$0.24
4	2	C10, C11	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 12pF C0G 0805 5%	KEMET	C0805C120J5GACTU	Mouser	80-C0805C120J5G	https://www.mouser.com/datasheet/2/212/KEM_C1003_C0G_SMD-1101588.pdf		\$0.11
5	1	C12	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 2200pF X8R 0805 5%	KEMET	C0805C222J5HACTU	Mouser	80-C0805C222J5H	https://www.mouser.com/datasheet/2/212/KEM_C1007_X8R_ULTRA_150C_SMD-1102703.pdf		\$0.69
6	1	C13	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 470nF 16V X7R 10%	Yageo	CC0805KKX7R7BB474	Mouser	603-CC805KKX7R7BB474	https://www.mouser.com/datasheet/2/447/UPY-GPHC_X7R_6.3V-to-50V_18-1154002.pdf		\$0.23
7	1	C14	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 1.0uF 10V X7R 10%	Yageo	CC0805KKX7R6BB105	Mouser	603-CC805KKX7R6BB105	https://www.mouser.com/datasheet/2/447/UPY-GPHC_X7R_6.3V-to-50V_18-1154002.pdf		\$0.25
8	2	C15, C18	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 10volts 10uF X5R 10%	KEMET	C0805C106K8PACTU	Mouser	80-C0805C106K8P	https://www.mouser.com/datasheet/2/212/KEM_C1006_X5R_SMD-1103249.pdf		\$0.14
9	1	C16	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 0.1uF X7R 0805 10%	KEMET	C0805C104K5RACTU	Mouser	80-C0805C104K5R	https://www.mouser.com/datasheet/2/212/KEM_C1002_X7R_SMD-1102033.pdf		\$0.24
10	1	C19	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 0.022uF C0G 0805 5%	KEMET	C0805C223J5GACTU	Mouser	80-C0805C223J5G	https://www.mouser.com/datasheet/2/212/KEM_C1003_C0G_SMD-1101588.pdf		\$0.76
11	1	C20	Tantalum Capacitors - Solid SMD Tantalum Capacitors - Solid SMD 50V 10uF 2917 10% ESR=800mOhms	KEMET	T491D106K050AT	Mouser	80-T491D106K050	https://www.mouser.com/datasheet/2/212/1/KEM_T2005_T491-1093550.pdf		\$1.83
12	1	C25	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 22pF 1KVolts 5%	Murata	GRM31A7U3A220JW31D	Mouser	81-GRM31A7U3A220JW1D	https://www.mouser.com/datasheet/2/281/1/GRM31A7U3A220JW31_01-1987629.pdf		\$0.43
13	1	C26	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 100pF 1KV C0G 5%	Vishay	VJ1812A101JXGAT	Mouser	77-VJ1812A101JXGAT	https://www.mouser.com/datasheet/2/427/vjcommercialseries-1764145.pdf		\$0.76
14	4	C28, C31, C50, C51	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 1206 50V 10uF X5R 10% T: 1.6mm	TDK	C3216X5R1H106K160AB	Mouser	810-C3216X5R1H106K	https://product.tdk.com/info/en/catalog/datasheets/mlcc_commercial_general_en.pdf?ref_disty=mouser		\$0.85
15	2	C29, C32	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 1206 25VDC 47uF 20% X5R 1.6mm	TDK	C3216X5R1E476M160AC	Mouser	810-C3216X5R1E476M	https://product.tdk.com/info/en/catalog/datasheets/mlcc_commercial_general_en.pdf?ref_disty=mouser		\$1.05
16	1	C40	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 100Vdc 10uF 10% 1210/2502	Murata	GRM32EC72A106KE05L	Mouser	81-GRM32EC72A106KE05	https://www.mouser.com/datasheet/2/281/1/GRM32EC72A106KE05_01A-1988109.pdf		\$1.38
17	1	C42	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 0805 10pF 1KV C0G 5%	Vishay	VJ0805A100JXGAT5Z	Mouser	77-VJ0805A100JXGAT5Z	https://www.mouser.com/datasheet/2/427/vjvharcguard-1763127.pdf		\$0.68
18	1	C44	Trimmer / Variable Capacitors Trimmer / Variable Capacitors TRIMMER CAPACITOR	Vishay	BFC280832659	Mouser	594-2222-808-32659	https://www.vishay.com/doc?28528		\$7.21
19	1	C46	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 4.7uF X7R 1210 10%	KEMET	C1210X475K5RACTU	Mouser	80-C1210X475K5R	https://www.mouser.com/datasheet/2/212/1/KEM_C1013_X7R_FT_CAP_SMD-1103280.pdf		\$1.81
20	1	C47	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 16V .01uF C0G 0805 5%	AVX	0805YA103JAT2A	Mouser	581-0805YA103J	https://www.mouser.com/datasheet/2/40/COGNP0_Dielectric-951274.pdf		\$0.96

21	2	C48, C49	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 2220 1uF 250volts X7R 10%	Murata	GRM55DR72E10SKW01L	Mouser	81-GRM55DR72E10SK	https://www.mouser.com/datasheet/2/281/1/GRM55DR72E10SKW01_01-1988382.pdf	\$1.48
22	1	C52	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 16V 1uF X7R 0805 10%	KEMET	C0805C105K4RACTU	Mouser	80-C0805C105K4R	https://www.mouser.com/datasheet/2/212/KEM_C1002_X7R_SMD-1102033.pdf	\$0.13
23	1	C54	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 100V 10uF X7R 2220 20% Tol HIGH CV	AVX	22201C106MAT2A	Mouser	581-22201C106MAT2A	https://www.mouser.com/datasheet/2/40/X7RDielectric-777024.pdf	\$1.83
24	8	D1, D2, D5, D6, D7, D8, D9, D10	Standard LEDs - SMD Standard LEDs - SMD Red Diffused 626nm 10mcd	Broadcom Limited	HSMS-C150	Mouser	630-HSMS-C150	https://www.mouser.com/datasheet/2/678/av02-0551en-ds-hsmx-cxxx-05mar2012-1827675.pdf	\$0.41
25	5	D3, D11, D12, D17, D18	ESD Suppressors / TVS Diodes ESD Suppressors / TVS Diodes Low Cap Bi TVS 10pF 3.3V 3.8Vbr 25kV	Diodes Incorporated	DESD3V3S1BL-7B	Mouser	621-DESD3V3S1BL-7B	https://www.mouser.com/datasheet/2/115/DESD3V3S1BL-321080.pdf	\$0.29
26	5	D4, D13, D14, D15, D16	ESD Suppressors / TVS Diodes ESD Suppressors / TVS Diodes Low Cap Bi TVS 10pF 3.3V 3.8Vbr 25kV	Diodes Incorporated	DESD3V3S1BL-7B	Mouser	621-DESD3V3S1BL-7B	https://www.mouser.com/datasheet/2/115/DESD3V3S1BL-321080.pdf	\$0.29
27	2	D19, D20	Schottky Diodes & Rectifiers Schottky Diodes & Rectifiers 1.0 Amp 40 Volt	STMicroelectronics	STPS140A	Mouser	511-STPS140A	https://www.mouser.com/datasheet/2/389/stps140-1851573.pdf	\$0.44
28	8	D21, D22, D23, D24, D25, D26, D27, D28	Schottky Diodes & Rectifiers Schottky Diodes & Rectifiers SIC DIODES	Infineon	IDH04SG60CXKSA2	Mouser	726-IDH04SG60CXKSA2	https://www.infineon.com/dgdl/Infineon-ApplicationNote_PFCCCMBoostConverterDesignGuide-AN-v02_00-EN.pdf?filed=5546d4624a56eed8014a62c75a923b05	\$2.64
29	2	F1, F2	Resettable Fuses - PPTC Resettable Fuses - PPTC 5A 13.2V 40A Imax	Littelfuse	MICROSMDD050F-2	Mouser	650-MICROSMDD050F-2	https://www.mouser.com/datasheet/2/240/Littelfuse_PTC_MICROSMDD_Catalog_Datasheet.pdf-1021745.pdf	\$0.47
30	2	J1, J3	Fixed Terminal Blocks Fixed Terminal Blocks 5.0MM PCB MOUNT 2P	TE Connectivity	282836-2	Mouser	571-2828362	http://www.te.com/commerce/DocumentDelivery/DDEController?Action=schrtrv&DocNm=114-20079&DocType=Specification+Or+Standard&DocLang=English&PartCntxt=282836-2	\$0.80
31	2	J2, J4				Mouser			
32	3	JP1, P2, P4	Headers & Wire Housings Headers & Wire Housings 3P VERT HEADER Sn	Molex	22-28-4030	Mouser	538-22-28-4030	https://www.mouser.com/datasheet/2/276/0022284030_PCB_HEADERS-228162.pdf	\$0.16
33	2	JP4, JP5	Headers & Wire Housings Headers & Wire Housings WR-PHD 2.54mm SMT 6P Hdr Dual Strt	Würth Elektronik	61000621121	Mouser	710-61000621121	https://www.mouser.com/datasheet/2/445/61000621121-1717892.pdf	\$0.93
34	1	L1	Fixed Inductors Fixed Inductors 6.8uH Shld 20% 9A 20.8mOhms AECQ2	Coilcraft	XAL6060-682MEB	Mouser	994-XAL6060-682MEB	https://www.mouser.com/datasheet/2/597/xal60xx-270658.pdf	\$2.58
35	2	L2, L3	Ferrite Beads Ferrite Beads 600 ohms 25% HIGH CURRENT	Bourns	MH3261-601Y	Mouser	652-MH3261-601Y	https://www.mouser.com/datasheet/2/54/mh-777565.pdf	\$0.10
36	1	L4	Fixed Inductors Fixed Inductors WE-SD Rod Core 10uH 5A 15.1mOhm	Würth Elektronik	744711005	Mouser	710-744711005	https://www.mouser.com/datasheet/2/445/744711005-1722097.pdf	\$1.83
37	1	L5	Fixed Inductors Fixed Inductors WE-CAIR Air Coil 100nH 1.7A 150MHz	Würth Elektronik	744912210	Mouser	710-744912210	https://www.mouser.com/datasheet/2/445/744912210-1723335.pdf	\$1.16
38	1	L8	Fixed Inductors Fixed Inductors 220uH Shld 10% 2.1A 245mOhms AECQ2	Coilcraft	MSS1210-224KEB	Mouser	994-MSS1210-224KEB	https://www.mouser.com/datasheet/2/597/mss1210-270677.pdf	\$2.26
39	1	MD1	Bluetooth Modules (802.15.1) Bluetooth Modules (802.15.1) Bluetooth Low Energy BLE Module, Shielded, Antenna, ASCII Interface, 12x22mm	Microchip	RN4870-I/RM140	Mouser	579-RN4870-I/RM140	https://www.mouser.com/datasheet/2/268/RN4870-71-Bluetooth-Low-Energy-Module-Data-Sheet-D-1658564.pdf	\$7.38
40	1	P1	Headers & Wire Housings Headers & Wire Housings WR-PHD 2.54mm Hdr 5P Single Str Gold	Würth Elektronik	61300511121	Mouser	710-61300511121	https://www.mouser.com/datasheet/2/445/61300511121-1717845.pdf	\$0.25
41	1	P3	Headers & Wire Housings Headers & Wire Housings WR-PHD1.27mm Hdr 14P Dual Str Gold	Würth Elektronik	62201421121	Mouser	710-62201421121	https://www.mouser.com/datasheet/2/445/62201421121-1718302.pdf	\$1.48
42	1	P5	Headers & Wire Housings Headers & Wire Housings WR-PHD 2.54mm Hdr 16P Single Str Gold	Würth Elektronik	61301611121	Mouser	710-61301611121	https://www.mouser.com/datasheet/2/445/61301611121-1717958.pdf	\$0.90
43	1	P6	Headers & Wire Housings Headers & Wire Housings 02 SIL VERTICAL PIN HEADER TIN	Harwin	M20-9990246	Mouser	855-M20-9990246	https://www.mouser.com/datasheet/2/181/M20-999-1218971.pdf	\$0.11
44	2	P7, P9	Headers & Wire Housings Headers & Wire Housings WR-PHD 2.54mm SMT 6P Hdr Dual Strt	Würth Elektronik	61000621121	Mouser	710-61000621121	https://www.mouser.com/datasheet/2/445/61000621121-1717892.pdf	\$0.93
45	1	P8	Headers & Wire Housings Headers & Wire Housings .100" Surface Mount Terminal Strip	Samtec	TSM-104-01-L-SV-P-TR	Mouser	200-TSM10401LSVPTR	https://www.mouser.com/datasheet/2/527/tsm-1344849.pdf	\$1.27
46	2	Q1, Q2	MOSFET MOSFET PT8 40V/20V LL NCh PowerTrench MOSFET	ON Semiconductor	FDMC8327L	Mouser	512-FDMC8327L	https://www.mouser.com/datasheet/2/308/FDMC8327L-D-1807402.pdf	\$0.86
47	8	R1, R7, R9, R10, R11, R12, R13, R14	Thick Film Resistors - SMD Thick Film Resistors - SMD 470 OHM 1%	Yageo	RC0805FR-07470RL	Mouser	603-RC0805FR-07470RL	https://www.mouser.com/datasheet/2/447/PYu_RC_Group_51_RoHS_L_10-1664068.pdf	\$0.13

48	6	R2, R3, R4, R5, R22, R23	Thick Film Resistors - SMD Thick Film Resistors - SMD 10K OHM 1%	Yageo	RC0805FR-0710KL	Mouser	603-RC0805FR-0710KL	https://www.mouser.com/datasheet/2/447/PYu_RC_Group_51_RoHS_L_10-1664068.pdf		\$0.13
49	8	R6, R15, R18, R19, R24, R25, R26, R27	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 4.7Kohms 5% 200ppm	Vishay	CRCW08054K70JNTA	Mouser	71-CRCW0805J-4.7K	https://www.mouser.com/datasheet/2/427/dccrw-1762150.pdf		\$0.12
50	1	R8	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 20ohms 1% 100ppm	Vishay	CRCW080520R0FKEA	Mouser	71-CRCW0805-20-E3	https://www.mouser.com/datasheet/2/427/dccrwe3-1762152.pdf		\$0.10
51	1	R17	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 30Kohms 1% 100ppm	Vishay	CRCW080530K0FKEA	Mouser	71-CRCW0805-30K-E3	https://www.mouser.com/datasheet/2/427/dccrwe3-1762152.pdf		\$0.10
52	1	R20, R57	Thick Film Resistors - SMD Thick Film Resistors - SMD 1K OHM 1%	Yageo	RC0805FR-071KL	Mouser	603-RC0805FR-071KL	https://www.mouser.com/datasheet/2/447/PYu_RC_Group_51_RoHS_L_10-1664068.pdf		\$0.13
53	1	R21	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 40.2ohms 1% 100ppm	Vishay	CRCW080540R2FKTA	Mouser	71-CRCW0805-40.2	https://www.mouser.com/datasheet/2/427/dccrw-1762150.pdf		\$0.16
54	1	R28	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 63.4Kohms 1% 100ppm	Vishay	CRCW080563K4FKEA	Mouser	71-CRCW0805-63.4K-E3	https://www.mouser.com/datasheet/2/427/dccrwe3-1762152.pdf		\$0.10
55	3	R29, R30, R31	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 4.7Kohms 1%	Vishay	CRCW08054K70FKEA	Mouser	71-CRCW0805-4.7K-E3	https://www.mouser.com/datasheet/2/427/dccrwe3-1762152.pdf		\$0.10
56	2	R32, R34	Thick Film Resistors - SMD Thick Film Resistors - SMD 10K OHM 1%	Yageo	RC0805FR-0710KL	Mouser	603-RC0805FR-0710KL	https://www.mouser.com/datasheet/2/447/PYu_RC_Group_51_RoHS_L_10-1664068.pdf		\$0.13
57	2	R33, R36	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 10ohms 5% 200ppm	Vishay	CRCW080510R0JNEA	Mouser	71-CRCW080510R0JNEA	https://www.mouser.com/datasheet/2/427/dccrwe3-1762152.pdf		\$0.10
58	2	R35, R37	Thick Film Resistors - SMD Thick Film Resistors - SMD 100K OHM 1%	Yageo	RC0805FR-07100KL	Mouser	603-RC0805FR-07100KL	https://www.mouser.com/datasheet/2/447/PYu_RC_Group_51_RoHS_L_10-1664068.pdf		\$0.13
59	1	R38	Current Sense Resistors - SMD Current Sense Resistors - SMD 1/4watt .02ohms 1%	Vishay	WSL1206R0200FEA	Mouser	71-WSL1206R0200FEA	http://www.vishay.com/doc?30373		\$0.89
60	1	R39	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/4watt 158Kohms 1%	Vishay	CRCW1206158KFKEA	Mouser	71-CRCW1206-158K-E3	https://www.mouser.com/datasheet/2/427/dccrwe3-1762152.pdf		\$0.10
61	1	R40	Thin Film Resistors - SMD Thin Film Resistors - SMD 0.1W 10Kohms 0.1% 1206 25ppm Auto	Vishay	MCA1206D1002BP500	Mouser	594-MCA1206D1002BP5	https://www.mouser.com/datasheet/2/427/mcx0x0xpre-1762843.pdf		\$0.51
62	3	R41, R42, R46	Thin Film Resistors - SMD Thick Film Resistors - SMD 0ohm Jumper	Bourns	CR1206-J/-000ELF	Mouser	652-CR1206-J/-000ELF	https://www.mouser.com/datasheet/2/54/crxxxx-1858361.pdf		\$0.10
63	6	R43, R44, R45, R47, R48, R49	Thin Film Resistors - SMD Thick Film Resistors - SMD 0ohm Jumper	Bourns	CR1206-J/-000ELF	Mouser	652-CR1206-J/-000ELF	https://www.mouser.com/datasheet/2/54/crxxxx-1858361.pdf		\$0.10
64	1	R50	Thin Film Resistors - SMD Thin Film Resistors - SMD 1/8W 931K ohm .1% 25ppm	Yageo	RT0805BRD07931KL	Mouser	603-RT0805BRD07931KL	https://www.mouser.com/datasheet/2/447/PYu_RT_1_to_0_01_RoHS_L_11-1669912.pdf		\$0.43
65	1	R51	Thin Film Resistors - SMD Thin Film Resistors - SMD 1/8W 64.9K ohm .1% 25ppm	Yageo	RT0805BRD0764K9L	Mouser	603-RT0805BRD0764K9L	https://www.mouser.com/datasheet/2/447/PYu_RT_1_to_0_01_RoHS_L_11-1669912.pdf		\$0.43
66	1	R52	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 1.1Mohms 1%	Vishay	CRCW08051M10FKEA	Mouser	71-CRCW08051M10FKEA	https://www.mouser.com/datasheet/2/427/dccrwe3-1762152.pdf		\$0.10
67	1	R53	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 75Kohms 1% 100ppm	Vishay	CRCW080575K0FKEA	Mouser	71-CRCW0805-75K-E3	https://www.mouser.com/datasheet/2/427/dccrwe3-1762152.pdf		\$0.10
68	1	R54	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 28Kohms 1% 100ppm	Vishay	CRCW080528K0FKEA	Mouser	71-CRCW0805-28K-E3	https://www.mouser.com/datasheet/2/427/dccrwe3-1762152.pdf		\$0.10
69	1	R55	Thick Film Resistors - SMD Thick Film Resistors - SMD 0805 2.94Kohms 1% AEC-Q200	Panasonic	ERJ-6ENF2941V	Mouser	667-ERJ-6ENF2941V	https://www.mouser.com/datasheet/2/315/AOA0000C304-1149620.pdf		\$0.10
70	1	R56	Thin Film Resistors - SMD Thin Film Resistors - SMD 1/10W 2Kohm 0.5% 25ppm	Susumu	RR1220P-202-D	Mouser	754-RR1220P-202D	https://www.mouser.com/datasheet/2/392/susumu_RR_Data_Sheet-1206438.pdf		\$0.10
71	2	RS1, RS2	Current Sense Resistors - SMD Current Sense Resistors - SMD 1206 0.010ohm 1% Curr Sense AEC-Q200	Panasonic	ERJ-88WFR010V	Mouser	667-ERJ-88WFR010V	https://www.mouser.com/datasheet/2/315/AOA0000C313-1141758.pdf		\$0.74
72	6	SW1, SW2, SW3, SW4, SW5, SW6	Tactile Switches Tactile Switches Top Actuated w/o boss w/o ground	Omron	B3U-1000P	Mouser	653-B3U-1000P	https://www.mouser.com/datasheet/2/307/en-b3u-3615.pdf		\$0.92
73	3	TP1, TP2, TP3	Circuit Board Hardware - PCB Circuit Board Hardware - PCB TEST POINT BLACK	Keystone Electronics	5001	Mouser	534-5001	https://www.mouser.com/datasheet/2/215/000-5004-741181.pdf		\$0.35
74	1	U1	Supervisory Circuits Supervisory Circuits Open Drain	Microchip	MCP111T-240E/TT	Mouser	579-MCP111T-240E/TT	https://www.mouser.com/datasheet/2/268/21889b-64653.pdf		\$0.47
75	1	U2	16-bit Microcontrollers - MCU 16-bit Microcontrollers - MCU	Texas Instruments	MSP430FR5994IPM	Mouser	595-MSP430FR5994IPM	https://www.ti.com/lit/pdf/slaa722		\$8.11
76	1	U3	Translation - Voltage Levels Translation - Voltage Levels 4-Bit Bi-directional V-Level Translator	Texas Instruments	TXB0104PWR	Mouser	595-TXB0104PWR	https://www.ti.com/lit/pdf/scea064		\$0.93
77	1	U4	Translation - Voltage Levels Translation - Voltage Levels 8-Bit Bi-directional V-Level Translator	Texas Instruments	TXB0108PWR	Mouser	595-TXB0108PWR	http://www.ti.com/general/docs/suppproductinfo.tsp?distld=26&gotoUrl=http%3A%2F%2Fwww.ti.com%2Flit%2Fgpn%2Ftxb0108		\$1.29

78	1	U5	Operational Amplifiers - Op Amps Operational Amplifiers - Op Amps Single 1.8V 1MHz	Microchip	MCP6001T-I/OT	Mouser	579-MCP6001T-I/OT	https://www.mouser.com/datasheet/2/268/21733j-740845.pdf		\$0.24
79	1	U6	Gate Drivers Gate Drivers 12V Industrial Relay Inductive Load	ON Semiconductor	NUD3112LT1G	Mouser	863-NUD3112LT1G	http://www.onsemi.com/pub/Collateral/AND8116-D.PDF		\$0.44
80	1	U7	Digital Potentiometer ICs Digital Potentiometer ICs Sngl 7B V I2C POT	Microchip	MCP4531-103E/MS	Mouser	579-MCP4531-103E/MS	https://www.mouser.com/datasheet/2/268/D5-22096a-36447.pdf		\$0.70
81	1	U8	Digital Isolators Digital Isolators Low-Power,Bidirec I2C Iso	Texas Instruments	ISO1540DR	Mouser	595-ISO1540DR	https://www.ti.com/lit/pdf/slyt403a		\$4.51
82	1	U9	Battery Management Battery Management 35V/3.2A Multi-Cell Lithium-Ion Step-Down Battery Charger with PowerPath and I2C Telemetry	Analog Devices Inc.	LTC4162EUFD-SAD#PBF	Mouser	584-4162EUFDSDPDB	https://www.mouser.com/datasheet/2/609/LTC4162_5-1398197.pdf		\$7.33
83	1	U10	Current & Power Monitors & Regulators Current & Power Monitors & Regulators Vltg Out Hi-Sd Msmnt Current Shunt Mntr	Texas Instruments	INA194AIDBVT	Mouser	595-INA194AIDBVT	https://www.ti.com/lit/pdf/sloa228		\$2.89
84	1	U11	Non-Isolated DC/DC Converters Non-Isolated DC/DC Converters	Texas Instruments	LMZM23601V5SILT	Mouser	595-LMZM23601V5SILT	https://www.ti.com/lit/pdf/snva834		\$6.17
85	1	U12	Non-Isolated DC/DC Converters Non-Isolated DC/DC Converters	Texas Instruments	LMZM23601V3SILT	Mouser	595-LMZM23601V3SILT	https://www.ti.com/lit/pdf/slpa015		\$6.17
86	1	U13	LDO Voltage Regulators LDO Voltage Regulators 50mA,100Vin,Sgl Out put LDO Linear Reg	Texas Instruments	TP57A4001DGNT	Mouser	595-TP57A4001DGNT	http://www.ti.com/general/docs/suppproductinfo.tsp?distid=26&gotoUrl=http%3A%2F%2Fwww.ti.com%2Flit%2Fgpn%2Ftps7a4001		\$2.81
87	1	U14	Switching Voltage Regulators Switching Voltage Regulators	Texas Instruments	LM5161PWPR	Mouser	595-LM5161PWPR	https://www.ti.com/lit/pdf/snua137a		\$4.21
88	3	C22, C23, C24	Film Capacitors Film Capacitors 100V .47uF 10% 1E=4.5x9.5x7.2 PCM 5	WIMA	MKS2D034701E00KSSD	Mouser	505-MKS2.47/100/10	https://www.mouser.com/datasheet/2/440/e_WIMA_MKS_2-1139871.pdf		\$0.48
89	1	R16	Thick Film Resistors - SMD Thick Film Resistors - SMD 1/8watt 47Kohms 1% 100ppm	Vishay	CRCW080547K0FKEA	Mouser	71-CRCW0805-47K-E3	https://www.mouser.com/datasheet/2/427/dcrwcwe3-1762152.pdf		\$0.10
90	1	X1	Crystals Crystals 8MHz 20pF	Fox	FOXSDLF/080-20	Mouser	559-FOXSD080-20-LF	https://www.mouser.com/datasheet/2/160/C45D-1131563.pdf		\$0.27
91	2	C41, C43	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 1206 100pF 1000volt COG +/-5%	Murata	GRM31A5C3A101JW01D	Mouser	81-GRM31A5C3A101J01D	https://www.mouser.com/datasheet/2/281/1/GRM31A5C3A101JW01_01-1987513.pdf		\$0.52
92	1	C45	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 0.01uF X7R 0805 10%	KEMET	C0805X103K5RAC7210	Mouser	80-C0805X103K5R7210	https://www.mouser.com/datasheet/2/212/1/KEM_C1013_X7R_FT_CAP_SMD-1103280.pdf		\$0.35
93	1	C53	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 0.033uF X7R 0805 10%	KEMET	C0805S333K5RACTU	Mouser	80-C0805S333K5R	https://www.mouser.com/datasheet/2/212/1/KEM_C1014_X7R_FE_CAP_SMD-1102761.pdf		\$0.41
94	2	C55, C56	Multilayer Ceramic Capacitors MLCC - SMD/SMT Multilayer Ceramic Capacitors MLCC - SMD/SMT 50V 100pF COG 0805 5%	KEMET	C0805C101J5GACTU	Mouser	80-C0805C101J5G	https://www.mouser.com/datasheet/2/212/KEM_C1003_COG_SMD-1101588.pdf		\$0.16
95	0	Y1	Crystals Crystals 32.768KHZ 10PPM 7PF -40C +85C	ABRACON	ABS07-166-32.768KHZ-T	Mouser	815-ABS0716632.768KT			\$0.66
96	1	Alternate Y1	Crystals 32.768kHz 6pF -40C +85C	ECS	ECS-327-6-34G-TR	Mouser	520-327-6-34GT	https://www.mouser.com/datasheet/2/122/ECX-34G-1064121.pdf		\$0.74